1. A chemical mechanical polishing apparatus to polish a substrate having a first surface and a second surface underlying the first surface, comprising:

a first polishing station having a first optical system, the first optical system including a first light source to generate a first light beam to impinge the substrate as it is polished at the first polishing station, the first light beam having a first effective wavelength, and a first sensor to measure light from the first light beam that is reflected from the first and second surfaces to generate a first interference signal; and

a second polishing station having a second optical system, the second optical system including a second light source to generate a second light beam to impinge on the substrate as it is polished at the second polishing station, the second light beam having a second effective wavelength that differs from the first effective wavelength, and a second sensor to measure light from the second light beam that is reflected from the first and second surfaces to generate a second interference signal; and

at least one processor to determine a polishing endpoint at the first and second polishing stations from the first and second interference signals, respectively.

2. The apparatus of claim 1, wherein the first effective wavelength is greater than the second effective wavelength.

3. The apparatus of claim 2, wherein the first light beam has a first wavelength and the second light beam has a second wavelength that is shorter than the first wavelength.

4. The apparatus of claim 3, wherein the first wavelength is between about 800 and 1400 nanometers.

5. The apparatus of claim 3, wherein the second wavelength is between about 400 and 700 nanometers.

6. The apparatus of claim 1, further comprising a third polishing station having a third optical system, the third optical system including a third light source to generate a third light beam to impinge on the substrate as it is polished at the third polishing station, the third light beam having a third effective wavelength, and a third sensor to measure light from the third light beam that is reflected from the first and second surfaces to generate a third interference signal.

7. The apparatus of claim 4, wherein the third effective wavelength is smaller than the second effective wavelength.

8. The apparatus of claim 4, wherein the third effective wavelength is equal to the second effective wavelength.

9. The apparatus of claim 1, further comprising a carrier head to move a substrate between the first and second polishing stations.

10. The apparatus of claim 1, wherein each polishing station includes a rotatable platen with an aperture through which one of the first and second light beams can pass to impinge the substrate.

11. The apparatus of claim 8, wherein each polishing station includes a polishing pad supported on a corresponding platen, each polishing pad having a window through which one of the first and second light beams can pass to impinge the substrate.

12. A method of chemical mechanical polishing, comprising:

polishing a substrate at a first polishing station;

generating a first interference signal by directing a first light beam having a first effective wavelength onto the substrate and measuring light from the first light beam

reflected from the substrate;

detecting a first endpoint from the first interference signal;

after detection of the first endpoint, generating a second interference signal by directing a second light beam having a second effective wavelength onto the substrate and measuring light from the second light beam reflected from the substrate, wherein the second effective wavelength differs from the first effective wavelength; and

detecting a second endpoint from the second interference signal.

13. The method of claim 12, wherein the first effective wavelength is larger than the second effective wavelength.

14. The method of claim 13, wherein the first light beam has a first wavelength and the second light beam has a second wavelength that is shorter than the first wavelength.

15. The method of claim 14, wherein the first wavelength is between about 800 and 1400 nanometers.

16. The method of claim 14, wherein the second wavelength is between about 400 and 700 nanometers.

17. The method of claim 12, wherein the step of generating the second interference signal occurs at the first polishing station.

18. The method of claim 12, further comprising transferring the substrate to a second polishing station after detection of the first endpoint.

19. The method of claim 12, further comprising:

after detection of the second endpoint, generating a third interference signal by directing a third light beam having a third effective wavelength onto the substrate and

measuring light from the third light beam reflected from the substrate; and

detecting a third endpoint from the third interference signal.

20. The apparatus of claim 19, wherein the third effective wavelength is smaller than the second effective wavelength.

21. The apparatus of claim 19, wherein the third effective wavelength is equal to the second effective wavelength.